

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

THE FARM INDEX

U.S. Department of Agriculture/Economic Research Service/December, 1970

TRI-AGENCY READING ROOM

MAY 26 1972

500 12th St., SW, Room 505
Washington, D. C. 20250

CENSUS COUNTDOWN PAGE 8



What's with pork prices? A year ago about this time cattlemen were asking why retail beef prices failed to reflect a drop in cattle prices over the previous 6 months.

Now, the same thing's happening with pork.

Larger hog supplies have driven down prices received by farmers to about two-thirds of what they were at the start of 1970.

The wholesale value in February-September dropped by around a dime per pound. The retail price, however, declined only 5 cents a pound. In other words, the wholesale-retail spread widened by a nickel.

How come? Here's one possible explanation:

Each time retailers' operating costs go up—e.g., a wage hike—storeowners may absorb the higher costs in the short run. They don't want to run the risk of discouraging consumer buying, particularly in times of rising prices at the retail level. But when wholesale prices subside, that's also when meat retailers could choose to take up the slack in their margins.

Trends in beef and pork spreads over the past 20 years show retail margins tend to widen when wholesale prices weaken, and decrease when the reverse is true.

Pork has generally fit the pattern. But the increase in the wholesale-retail spread in February-September of the current year has been somewhat greater than would be expected from the price relationships during the past 2 decades.

Along the wool way. Situation is so-so . . . a probable decline again for 1971 in U.S. wool production, linked to further slippage of sheep numbers . . . perhaps some pickup in mill activity if generally economy warms . . . a slight firming of prices as '71 progresses.

Farm prices in year just ending were around 4 cents a pound below 1969's average 41.8 cents a pound.

Wool producers can't expect much change over '70 prices this coming season. A standoff is likely between lower prices in the earlier months and higher ones in the second half of '71. Brightest price prospects are for mohair.

Barley and oats bins full. Oat supply for 1970/71, at 1.4 billion bushels, is 4 percent above a year ago and most in a decade.

No lack of barley in the offing either. Supplies are headed up for the third year in a row, with a 1970 harvest estimated at 410 million bushels—about the same as last year.

The tightened corn situation will invite some stepup in use of both these grains. Oat feeding, particularly, should rebound after several years' lag behind production.

Vitamin C galore. Harvests are expected to be abundant . . . in some cases record-breakers. Here are forecasts as of Nov. 1.

Oranges: A record 192.5 million boxes, 15 percent more than last season (excluding California Valencias still to come). Big new crop, plus large carryover of frozen concentrated orange juice, adds up to heavy supplies and

price pressures on new-crop fruit.

Grapefruit: Biggest crop in 25 years—64.3 million boxes—will be 24 percent more than 1969/70. (This doesn't count California's "Other Areas".)

Lemons: At estimated 3.5 million boxes, Arizona's crop is 24 percent above year ago.

Tangelos, tangerines, and Temples: Florida crops are forecast at 3.3 million boxes (up 32 percent); 5.9 million boxes (up 49 percent); and 6.5 million (up 25 percent), respectively.

Milk output rising. Production made the first gain since 1964 in the year now ending. It's estimated 116 1/2-117 billion pounds, up from 1969's 116.2 billion.

Further increases are looked for in '71, though higher prices for feeds might limit the expansion.

The decline in milk cow numbers continued to slow during 1970. The inventory averaged around 12.5 million head, down 1.7 percent for the year.

Poultry prospects 1971. Output of eggs and turkeys are seen running above year-earlier levels through the first half of 1971. Broiler production, in contrast, may average moderately lower.

The price outlook for producers shapes up like so:

Shell eggs: The usual seasonal decline is expected next spring, though less pronounced than in early '70, maybe averaging near the 32 cents a dozen of a year ago.

Broilers: Some strengthening by springtime, but prices won't fully reflect the cutback in output. Reason is prospect of lower prices for pork, broilers' main competitor at the meat counter.

Turkeys: Probably "well below" prices in January-June 1969 due to bigger production, increased cold storage stocks, and larger supplies of competing red meats.

Over the top. Exports of U.S.

	February	September	Change
		Cents	
Pork's retail price per pound	81.8	76.7	-5.1
Wholesale value	65.2	55.1	-10.1
Farm value	50.0	35.5	-14.5
Farm-retail spread	31.8	41.2	9.4
Wholesale-retail spread	16.6	21.6	5.0
Farm-wholesale spread	15.2	19.6	4.4
Farmer's share of retail price (percent)	61	46	

farm products are slated to hit an alltime high of over \$7 billion for year ending June 30, 1971.

Soybeans and feed grains are pacing the gain over previous record of \$6.8 billion in 1966/67. Last fiscal year value was \$6.6 billion.

All the advance is in commercial sales for dollars (barter and short-term credit counted in). At present clip they'll be up 5 percent from 1969/70 exports.

At final tally, prices of major export items are expected to show up higher than relatively low year-earlier levels. Heavier demand is main reason . . . reduced feed grain and cotton supplies also a factor in price pushup.

Moreover, our biggest foreign customers have been feeling no pinch, what with an estimated spurt of 19 percent in Japan's 1970 industrial production and 7 percent in Canada's.

Foreign Spotlight

Cuba's 1970 sugar harvest of 8.5 million tons fell short of its 10-million-ton goal but is still the highest output in Cuba's history. For the 1969/70 sugar campaign, sugar area was increased to over 1.7 million hectares — three-fourths more than the average area harvested in 1962/63-1968/69.

USSR cotton outlook is bright, with an unusually rapid harvest auguring well for a record crop. By October 5, farm sales totaled 4.0 million tons, compared with 1.0 to 1.1 million in previous best years 1966-67. Farms have "pledged" sales of 6.3 million to the government this year.

Finland, plagued by wheat and milk surpluses, has a soil bank program. This "Act of Limiting the Use of Fields" is the first of its type in Western Europe.

Senegal's 1970/71 peanut harvest—forecast at 775,000 tons—will be the lowest since 1956. Exports of peanuts and peanut oil from this major world producer will again be reduced.

FARM

RURAL

MARKETING

CONSUMER

FOREIGN

Audrey Ames Cook
Editor

Martin Schubkegel
Assistant Editor

Diane Decker
Walter M. Patrick
Staff Editors

The Farm Index is published monthly by the Economic Research Service, U.S. Department of Agriculture, December 1970. Vol. IX, No. 12.

Contents of this magazine may be reprinted without permission. They are based on research of the Economic Research Service and on studies done in cooperation with State agricultural experiment stations. Use of funds for printing this publication approved by Director of the Bureau of Budget, May 24, 1967. Subscription price: \$2 yearly (\$2.75 foreign). Order from Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.

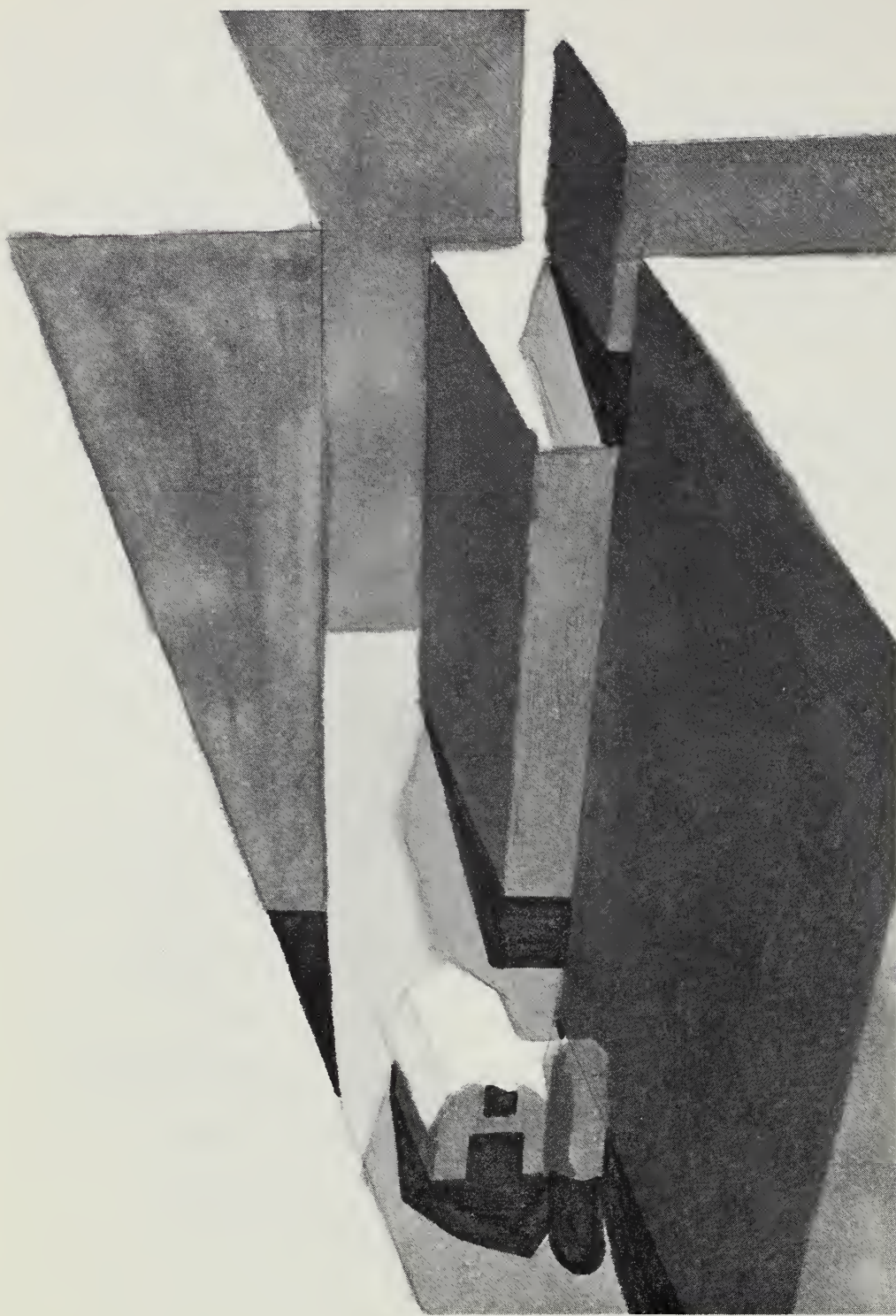
Features

- 4 The Land Squeeze In California**
What it means for agriculture
- 8 Census Countdown**
First reports from the "different" 1969 agricultural census due in February
- 21 Won't You Come Back Miss Muffet?**
Knee deep in whey, the cheese industry would welcome more like her
- 14 Traffic Builders At The Supermarkets**
How food retailers compete for satisfied customers
- 16 In The Latin Sphere**
About Guatemala . . . banana business . . . and St. Vincent's arrowroot

Departments

- 2 Agricultural Outlook**
- 19 Recent Publications**
- 20 Addresses of State Experiment Stations**
- 20 Article Sources**
- 21 Index to The Farm Index January-December 1970**
- 23 Economic Trends**

Numbers in parentheses at end of stories refer to sources listed at end of issue.



THE LAND SQUEEZE IN CALIFORNIA

Though a land shortage is not imminent, some of the bastions of California's agriculture will have to make room for more people needing places to live and work.

If San Francisco keeps moving south and Los Angeles north, sooner or later the twain have got

to meet. The message is plain to the men who farm the land in this region: they would be squeezed out.

As the bustling economy plays leapfrog with an expanding population, the rising pressure on land and water resources is seen as one of the stickiest problems California's agriculture has ever had

to come to grips with.

More people demand more services . . . places to live and shop and work and get an education . . . and places to spend their leisure.

All of which take up space. Agriculture, of course, needs it too, not only to provide food and fiber for California but also for the rest of the Nation as well.

California officials have estimated that by the year 2000 the State's population may reach 38 million, nearly double the 20 million of today.

Like wheat to Kansas, people take to California. Outsiders immigrate there for many of the same reasons that oldtime Californians are staying put. Among its plusses are the State's agreeable climate, plenty of retirement communities for senior citizens, and jobs and education not only for young upstarts but for others well along in their careers.

Over the past decade, 15 percent of the total gain in the national work force was in California. Its employment rolls swelled by some 2.2 million workers, the most of any State. Also first in the Nation during 1960-70 was California's increase in population—almost 4 million people.

In the backwash, huge blocks of farmland have been absorbed by urban sprawl and industry around Los Angeles and the San Francisco Bay area during the past 20 years. Parts of the fertile Central Valley and Southern Coastal Valley—the longtime bastions of agriculture—have also gone out of farming.

More recently, the fast growing and affluent populace has been moving into the foothill and mountain regions. There, real estate is being bought up for second homesites and recreation uses. This once prime grazing territory for cattle and sheep is becoming less and less prime from the viewpoint of the rancher.

Caught in the land squeeze, these men are taking the same

route as farmers in other parts of the State where rising land values and land taxes make agriculture uneconomical. They move to places where land is cheaper and the heat of population pressure is less intense.

Yet through it all, California has maintained its traditional part of the U.S. market for agricultural commodities. This State still provides the lion's share of such specialties as lettuce and tomatoes, grapes, sugar beets, and greenhouse and nursery products.

California also continues to be one of our leading suppliers of citrus fruits, cotton, potatoes, and other vegetables, rice, and a wide assortment of tree nuts, to name but a few of its crops.

In 1969, no other State topped California's cash receipts from agriculture—a record \$4.4 billion worth.

The story of tomorrow, however, is sprinkled with question-marks.

Will the limited land and water resources that will be available in the future permit the State to supply a constant or increasing share of the market for farm produce? What will be the changes in the mix of crop and livestock patterns? What are the implications for individual farmers?

The answers are explored in a just-published study by the University of California at Davis in cooperation with the Economic Research Service.

The conclusion of the research team is somewhat reassuring, though they emphasize the State will continue to be plagued by land use problems.

Also, there are many "ifs" in the outlook. They are too numerous to be enumerated here. But the prospects—based on a set of assumptions pinned to likely happenings outside California as well as within—shape up like this for 1980 and beyond to the year 2000:

—Land put to urban uses is projected to go up from 2 million

acres in 1960 to 3.6 million in 1980, and 4.8 million in 2000. About 30 percent of the increase through 1980 would consist of what is now "prime" cropland; 40 percent, of less productive land; and the rest, of land unsuited to cultivation. Much of the shift from farm to urban uses would be in the counties of Los Angeles, Sacramento, San Diego, and Fresno.

—While cropland, range, and pasture acreages are going over to urbanization, there will also be changes in the ways agriculture itself uses the land. More cropland will be irrigated (an additional 1 million acres or so will be added every 20 years to the present 8½ million); pasture and rangeland will be converted to cropland; and forest and woodland to pasture and range.

—Urban requirements for water will expand faster than agriculture's needs, both in percentage increase (urban use to rise 20 percent by 1980 and 28 percent by 2000) and in absolute terms. Still, agriculture will remain by far the State's major user of water.

—Acreages in fruits, nuts, grapes, and vegetables are expected to maintain their upward trend of the past decade. This would reflect a growing U.S. demand for these products—and California's strong competitive position to produce them because of its climate and its network of established growers, processors, and distributors.

—The State will continue to be a deficit feed grain producer, but a shift from dryland to irrigated land might enable bigger production on existing or smaller acreage. Prospects for other field crops (like cotton and rice) will depend mainly on future government programs.

—On the livestock side, production is seen higher in all categories, with the sharpest rise in turkey meat. (The projection for beef cattle, however, assumes the



News From the North

Good news for Rudolph and the other reindeer. Bad luck for the lovesick.

In 1969, the dressed weight production of slaughtered reindeer declined by more than 150,000 pounds from the 1968 figure of 739,000 pounds. The "crop" of reindeer antlers—sent mainly to the Far East as aphrodisiacs—declined from 11,649 to 5,622 pounds.

The slaughter season comes late in the year, so figures aren't in yet for 1970, but reports from Alaska say that output this year should run about the same as in 1969.

Reindeer were first imported to Alaska from Siberia in 1892 as a substitute for the coastal Eskimo's normal food supply—whales and walrus—that had been depleted by commercial hunters. By the time the Russian government prohibited the exportation of live reindeer in 1902, the United States had brought 1,280 animals into Alaska at a cost of \$133,000.

The Alaskan herds grew to over 600,000 head by 1932, but during the 1940's the number declined drastically because of neglect in war years. By 1950 there were only 25,000 animals left.

For the past several years, the herds have remained fairly steady at approximately 31,000 animals, located mainly on the Seward Peninsula.

Today, all commercial reindeer are owned by Eskimos. The market for reindeer meat and by-products is small and variable, and the early hopes for the industry have not yet been fully realized.

But there is a bright side to the picture for the thousands of children who are waiting for Santa's sleigh:

If Rudolph is an Alaskan reindeer, he probably made it through another year. (2)

THE SOYBEAN OUTLOOK is taking a new turn. For years production was increasing at a somewhat faster pace than utilization. That was true until a year ago.

Since then, soybean's use has been climbing faster than production. So, the supply is down.

By current indications, the soybean carryover next September 1 would be the equivalent of about a half month's requirements for crushing and exports. This would be the smallest carryover since Sept. 1, 1966.

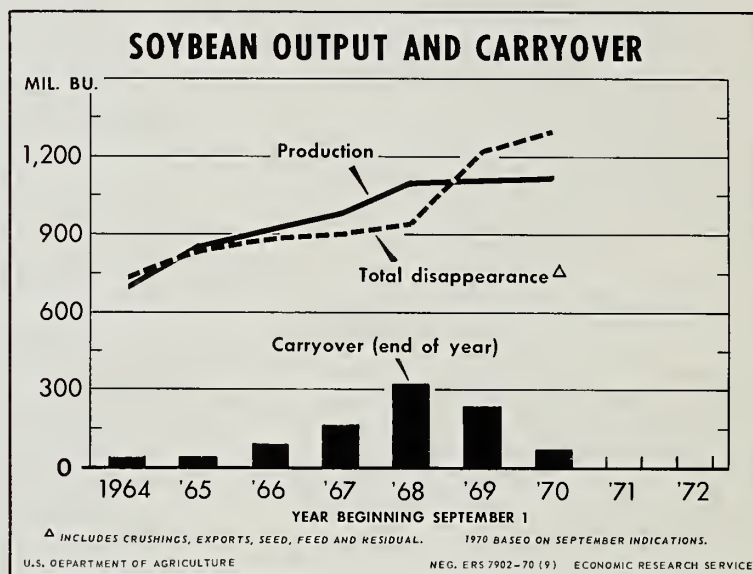
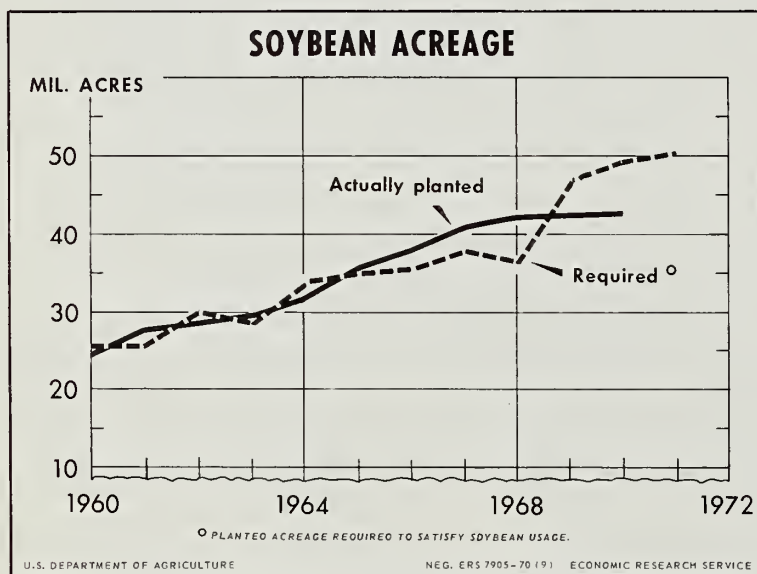
Total use in the 1970/71 marketing year that began last September may not show the increases of the likes of 1969/70. That year utilization gained almost 30 percent, a new record. Exports rose 50 percent, and the domestic crush 21 percent.

In 1970/71, use is now estimated 1.3 billion

bushels, 100 million above last season's. Smaller supplies and higher U.S. prices will tend to work against substantial growth in utilization.

Nevertheless, total soybean use in 1970/71 would still come to an alltime high . . . equivalent to the production from 49 million acres. In actuality, only 42½ million were planted for this year's soybean crop. Thus, carryover stocks by September 1971 are expected to drop for the second year in a row.

Below left: trends in acreages actually sown to soybeans versus probable requirements if use and stocks were to be maintained. At right: trends in production are compared with total disappearance (utilization). The difference between the two—year-end carryover—is illustrated as bars. (3)



local industry can remain competitive with feedlot operators in the southern States and the South Plains.)

—Farms are going to become bigger in terms of size, production, and amounts of capital employed. The substitution of capital for labor will continue, though at an accelerated pace as new and improved machines supplant hand labor in those crops that are now labor intensive.

—These other changes are also in prospect: greater integration of the production end with processing and marketing; and increased use by management of specialists—such as soil technicians, irrigation engineers, ac-

countants, and lawyers—as permanent members of the farm labor force.

To sum it up, there seems to be no danger of food or land shortages in the foreseeable future. And if by some chance this did happen, the low value crops California now produces would move to other States with greater land and water resources. Put another way, California would up its imports of feed grains and meat, while growing more high value specialty crops (fruits, nuts, vegetables, etc.) and exporting them to deficit States.

Even so, this recent study points out that a good case can be made for planning today the ways

California's land will be used tomorrow.

For one thing, an attractive and livable environment depends on having greenbelts in the interests of controlling air and water pollution.

And, land suitable for crops and livestock ought to be kept in reserve as a hedge against unforeseen increases in demand for food at home and abroad. This could be achieved by redirecting urban growth onto tracts with low agricultural potential, by establishing new towns in nonagricultural areas, and by planning the development of urban centers to allow for greater densities of population. (1)

Farmers Costs Would Rise With Restrictions on Herbicide Use

Farm use of phenoxy herbicides—chiefly 2,4-D—has risen rapidly since their development in the mid-1940's.

These herbicides are effective and economical tools to combat the growth and spread of a variety of brush species on pastureland and broadleaf weeds on cropland.

The phenoxy, about a dozen chemicals in all, are also highly "selective" herbicides. This means they control some weeds and brush without injuring desirable plants.

But are these pesticides also safe to man and the environment?

Concern over their potential danger was aroused by the laboratory findings of a private research firm, which indicated that one phenoxy—2,4,5-T—or a contaminant in it, produces more than the expected number of deformities in the offspring of rats and mice when administered in large doses.

In late 1969, the USDA considered what the impact would be if use of phenoxy herbicides were to be restricted.

Obviously, restrictions on farm use of phenoxy would mean farmers would look for alternatives. For some weed problems in some crops, there is no alternative to phenoxy that would be completely satisfactory.

For many other crops, however, substitute herbicides and selected cultural techniques can be used to effectively control some of the same weeds. Their usage would also involve substantial costs to farmers.

A recent analysis by USDA's Economic Research Service and Agricultural Research Service estimates that U.S. farmers' production costs would increase by around \$290 million a year if use of phenoxy herbicides were completely prohibited. The increase would amount to \$4.64 per acre of land now being treated with phenoxy. This assumes the current rate of farm output is maintained.

The increase in costs represents about 1 percent of the farm value of all crops and 5 percent of the value of the crops from treated acreages. The \$290 million is also three times that spent for weed control when using the phenoxy herbicides.

Farm use of phenoxy totaled 44 million pounds in 1966, latest year for which data is available. Though use has risen since then, it is believed to be not much above the 1966 level.

Of total usage, 37 percent was for corn, 23 percent for pasture and rangeland, 17 percent for wheat, and 10 percent, other small grains. (4)

Noncash Benefits Figure Into Iowa Farmworkers' Pay Package

To the hired farm workers of eastern Iowa, noncash payments make up an important part of their pay packages.

A recent study of some 100 full-time employees on large commercial hog farms found that the noncash "payments-in-kind" came to 24 percent of total pay.

Workers' cash wages or salaries averaged \$320 per month in 1968. (The figure now is probably around \$370 in view of the increases in wages generally.)

The annual average of total cash payments—salary plus "extras" such as bonuses and overtime pay—was \$4,377, or \$1.49 per hour.

Besides cash wages and extras, however, many farm employees receive perquisites. These non-cash benefits include housing, room and board, farm produce, and utilities. The overall average of perquisites was \$1,403 annually. Nearly half was for housing.

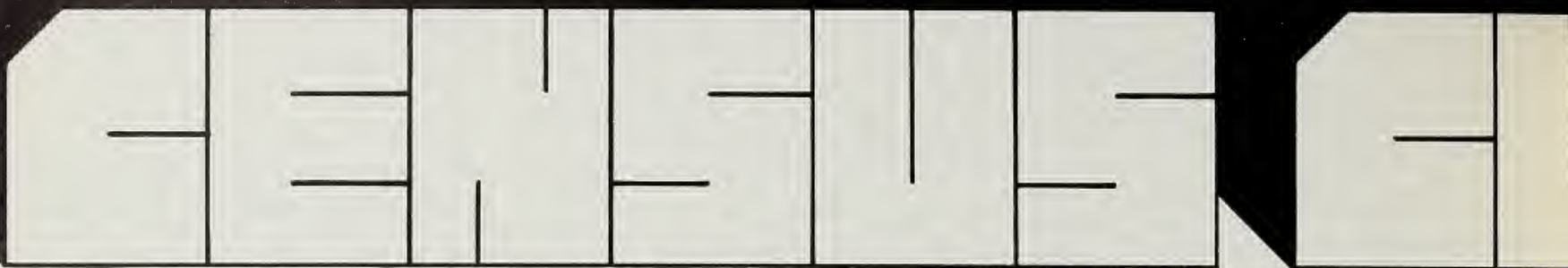
All told, the total pay package averaged out to \$5,780 a year, or \$1.98 an hour. Only two employees had pay packages of less than \$3,000 annually, and physical limitations of these workers accounted for at least part of the lower value.

Interviews with the employees revealed that most of them were well aware of the value of the perquisites and of the tax advantages of receiving these noncash payments. (5)

CORN PRODUCERS' COSTS WOULD RISE THE MOST IF USE OF PHENOXY HERBICIDES WERE RESTRICTED

Crop	Reduced materials and application	Substitute herbicides and application	Additional cultural practices	Production on additional acres	Net additional costs
Million dollars					
Corn	-37.0	122.5	21.2	—	106.7
Wheat	-21.9	15.3	12.1	45.0	50.5
Other small grain	-14.6	10.9	9.1	23.1	28.5
Sorghum	-5.6	14.5	2.4	—	11.3
Rice	-0.4	—	¹ 6.4	1.6	7.6
Other crops	-5.4	—	—	21.3	15.9
Range	-10.4	—	43.3	—	32.9
Pasture	-7.2	—	43.1	—	35.9
All crops	-102.5	163.2	137.6	91.0	289.3

¹ Includes \$2.2 million for lower income from loss in quality.



In a matter of weeks we'll get an indication of how our Nation's agriculture has changed over the past 5 years—in the distinctly new 1969 Census of Agriculture.

What makes the big farm operator different, besides the sum of his cash receipts? How much did farmers spend on pesticides last year?

For the answers, turn to the 1969 Census of Agriculture. The first round of county and State reports—on the North Central region—is due off press beginning this coming February. Reports for other regions will follow, and all are expected to be available by October next. Unlike the '64 Census, there will be no preliminary reports.

No one knows for sure what the final product will be like. But it's safe to say this recent census is one of the most radically different in the past 130 years.

It covers, of course, such things as farm numbers by size and class, inventories of farm equipment and facilities, and a variety of farming practices.

In addition, however, there will be a series of special supplementary surveys. Scheduled to begin in early 1971, these will provide first-time statistics on American agriculture not requested on the

basic census questionnaire.

The '69 Census also included for the first time a Census of Agricultural Services about the operations of veterinarians, crop sprayers, fruit packers, cotton ginnerers, corn shellers, hatchery operators, and horticultural consultants.

Other innovations of the recent census have to do with the way it was put together. This time the raw data were gathered by mail questionnaires.

Previous counts relied on enumerators—"the census takers," as most people know them, who paid personal calls on farmers and others with interests in agriculture.

Doing away with enumerators was the most controversial feature of the '69 Census. Critics said a mail census would, in the end, yield low returns and inaccurate figures.

In a few areas, the return rate was poor. But followup reminders from the Census Bureau, including the sending of enumerators when necessary, succeeded in drawing a response. When the Bureau wound up the data collection phase last August 31, the return rate was running at 95 percent.

Actually, the elimination of enumerators tends to reduce the chance that human errors and

biases will creep in. A mail census, in the opinion of the Census Bureau, is the most effective and direct link between farmers and those who tabulate the statistics.

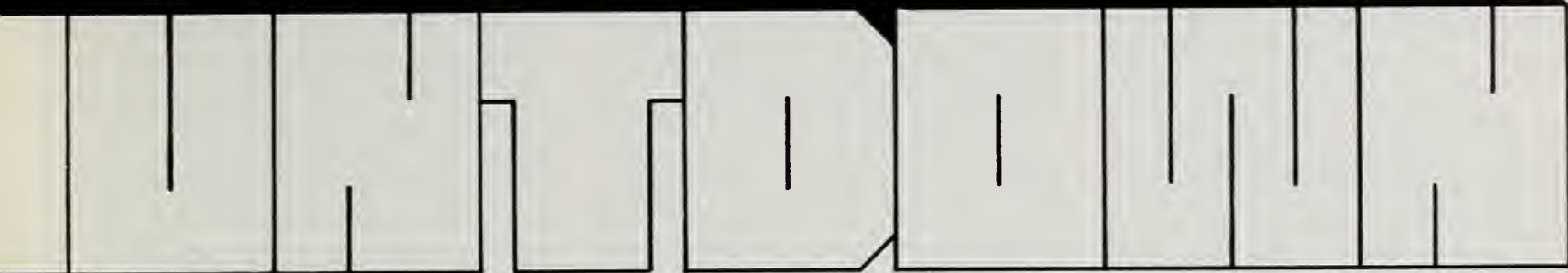
Last, but hardly least, doing away with the enumerators has saved taxpayers well over \$1 million.

Use of computers has been stepped up for the current census. This machine speeds up the tabulation process and spots miscalculations in information supplied by farmers. Another advantage of the computer is that it puts the results on tapes, for ready use by electronic processing systems of universities and others making special studies.

The special supplementary surveys will begin early next year and continue into 1972. Operators who produce most of our food will be contracted by mail to garner data about their production methods.

Commercial dairy operators, for example, will be asked about type of milking parlor . . . whether any feed grinding and mixing is done on the farm . . . how much was spent for dairy health products and dairy equipment.

Other commodities to be covered are: cash grains, tobacco, cotton, and various field crops. A supplemental census will cover



greenhouse and nursery products. The findings, to be published separately, will be shown by principal producing counties, States, and the Nation as a whole.

A sample survey of farm finance is also scheduled for early next year. This data, presented by class of farm, will include figures on farm debt, credit arrangements, and taxes.

The current agricultural census is just one of the most recent stages in a counting process that's been going on for thousands of years.

After the Israelites left Egypt, they took a census that was included in the Bible as the Book of Numbers. William the Conqueror took stock of England after he moved in. The results have come down to us as the Domesday Book, a census that stacks up well against modern efforts.

The U.S. Census, however, was one of the first counts to be taken on a regular basis. Article I, Section 2 of the Constitution directed an "enumeration" of the population to be taken every 10 years for taxing purposes and to guarantee a fair distribution of seats in the House of Representatives.

The first census of population was taken in 1790 at a total cost of \$4,377.28. It asked just six questions and the printed results

filled a small book of only 56 pages.

By 1800, some people were already asking for more information. For example, Thomas Jefferson, as president of the American Philosophical Society, petitioned

Way back then, in 1840, we had 19 million sheep (vs. 25 million by the 1964 Census), 6 million milk cows (16 million in '64) and 24 million pigs (54 million).

The first wheat census, in 1839, placed production at 85 million bushels, compared with nearly 1.3 billion in 1964.

The first census of farm numbers was in 1850. Then there were 1.5 million farms, against 3.2 million in 1964. But the largest number of farms was recorded in 1935—6.8 million.

By the first tally of the farm labor force, in 1910, 13.6 million persons were working on farms . . . and in 1964, 6.1 million.

While new items were being added to the census, a few were deleted. Horses and mules, for instance, haven't been counted since 1959. The estimate was 3 million, down 1 million from 1840.

Congress for "a more detailed view of the inhabitants of the United States under several aspects," and he listed topics for possible inclusion in the census.

During the years after Jefferson made his appeal, a few efforts were made to gather industrial

statistics and to find out more about the population than its race, age, and sex.

But 1840 was the first year in which a concerted effort was made to expand the census. Questions were asked about mining, commerce, manufacturing, schools—and, of course, agriculture.

The 1840 agricultural census was limited by today's standards. It was restricted mainly to an inventory of the principal classes of domestic animals, the production of wool, the value of poultry, the value of dairy products, and the production of principal crops.

Since 1840, the scope of the agricultural census has been broadened and the census-taking machinery improved. The number of farms, along with their acreage and value, was first reported in 1850. The 1880 Census asked about farm tenancy for the first time.

In 1925, a detailed classification of farmland was instituted. Also that year the 5-year Census of Agriculture began. An economic classification of farms was started in 1945. Computers were used extensively for the first time in 1964. The 1969 agricultural census, however, marks what is perhaps the most ambitious attempts of all to improve upon the extent and accuracy of the count to stand for the next 5 years. (6)

Population Census Foreshadows New Problems in Rural America

If "Suburbia" today went on the New York Stock Exchange, it would undoubtedly qualify as "growth stock."

Preliminary census data indicate that population inside our central cities increased 4.7 percent over the past decade. BUT, the population in those parts of the Standard Metropolitan Statistical Areas (SMSA's) that lie outside the central cities, increased at a much faster rate—by 25.8 percent.

If this growth continues—as seems likely—rural areas on the urban fringes will be facing a whole new set of problems.

An overriding one has to do with providing public services. As housing densities increase, the needs for local government services also multiply: for paved streets, central water and sewer systems, garbage collection, expanded police and fire protection, and a host of other services.

The money to provide these services obviously has to come from somewhere. In most States it's the property tax. No one, of course, likes higher taxes. The question of who foots the bill can be a real source of conflict.

For example, many farmers, being large property owners, already feel they are paying more than their fair share of property taxes. But other residents may argue the contrary. They maintain that the land occupied by farmers ought to be taxed even more heavily. To their way of thinking, farm property has a high value in terms of its potential use for homesites.

Another related problem has to do with planning the strategy to produce the kind of community that the citizens want. Despite the available means to achieve the objectives (such as zoning laws, tax incentives to influence land use, and local control over

highway and sewer locations) these things are of little value unless they are employed as part of a coordinated plan for community development.

However, the local citizens must first be in agreement on what they want, and work toward the goals collectively. This becomes increasingly difficult as the local population gets bigger and has more diverse interests.

Governmental units also will have to work more closely together in the future. Otherwise, their decisions affecting area planning could well cancel each other out. This can be a tall order, considering today's large number of small governmental units. (7)

Estate Settlements: The Private Will Versus Distribution by State

Making a will can be an arduous, time-consuming task, but one a landowner shouldn't ignore if he cares how his property is distributed after his death.

When a farm owner dies intestate—leaves no will—his State manages the distribution of his land. State disposition, however, is based on fixed laws of descent and distribution. They rarely allow for the allotment variations a farmer may have desired.

In Montgomery County, Va., for example, the majority of farmers who died between 1900 and 1946 hadn't made wills. The State, acting as executor, parceled out farmers' estates as prescribed by law. Once divided among the legal heirs, much of the property was too small to be operated profitably. After settlement, 15 of the estates became 67 tracts of land.

During the 46-year period, 42 foresighted farmers in the county drew up wills before their deaths. Only one of the wills directed allocation of property exactly the way the State would have. (8)

Image of Old Age Depends on The Eyes of Generation Viewing It

Despite the current generation gap, younger and older persons—both urban and rural—are likely to agree on one thing: neither of their own generations is the most respected or most influential.

That distinction is accorded to the "middle age" ranks (30–64), judging by personal interviews with over 800 Kentuckians who represented both the younger and the older generations. No institutional persons were included.

The younger group in the survey (20–29) had only recently removed themselves from the turbulent life of teenagers to begin their work and family careers. The older interviewees, with a median age of 69, were at the opposite end of the life course. About two-fifths of them considered themselves retired.

Significant differences between the generations showed up when it came to opinions about age groups *least* respected and with the *least* influence.

In the urban area, both the younger and older generations gave first choice to youth (to age 21) as the period of life commanding least respect.

In the rural area, the younger generation still selected youth. But the older generation cited their own older age as the stage of least respect.

In both metropolitan and rural areas, each generation viewed itself as being deprived of influence.

Regardless of residential environment, the young people saw themselves as the least influential. All the older people felt the same way about their own period of life.

In general, old age seemed to come soonest in a rural environment. And rural oldsters viewed themselves and their retirement more negatively than their city counterparts. (9)

The "Instant" Home

WANTED: Young couple would like to buy new 2-bedroom home, fully equipped, fully furnished. Occupancy within 2 weeks. Price range; \$5,000-\$8,000.

An impossible dream? Not really—because the young couple are obviously shopping for a mobile home.

Mobile homes now make up over one-third of all new single family housing units being added to the Nation's housing supply.

This proportion varies widely, of course, throughout the country. In Michigan, for example, mobile home equalled 54 percent of permits for new housing units in 1969; in Connecticut, only 5 percent.

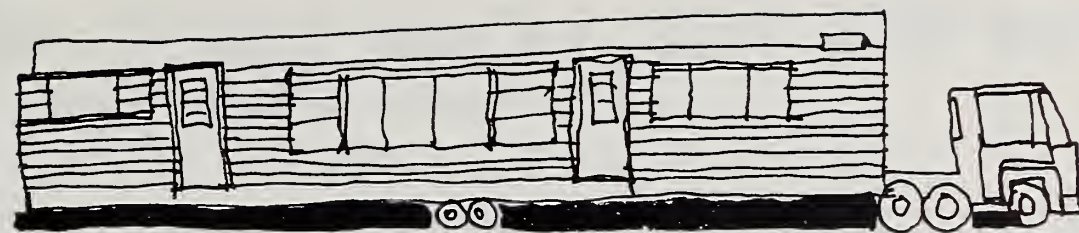
Shipments of the "instant" dwellings in the early 1960's ran about 100,000 annually. But with skyrocketing costs of conventional housing and tighter money for mortgage financing, mobile home production more than quadrupled to over 400,000 units in fiscal year 1970.

Both price and appearance of these factory built units makes them attractive to people with low or limited incomes.

Moreover, credit terms now available for mobile home purchases are more favorable than formerly. This makes it possible for many families to acquire the first home of their own. Or it may enable them to move out of old, dilapidated quarters into a home that not only meets modern dwelling standards but may even be above them in some respects.

About half of today's mobile homes are located outside metropolitan areas, in "rural" America.

And, since about a third of our population lives outside big city areas, mobile homes are contrib-



uting more to the housing needs of rural than of urban America.

The Department of Housing and Urban Development recently published a survey of new mobile homeowners. In summary:

The new occupants are highly immobile; resale is less than 10 percent per year during the early years of ownership.

Most buyers are satisfied with the product they've bought. Young families are the best customers. The proportion of buyers in the middle-aged and retirement-aged brackets is less than these age groups' proportion of the Nation's total population.

The price? Mobile homes sell for considerably less than conventional homes.

Average mobile home price in 1966 was around \$5,600, excluding payment on a lot. (The typical mobile homeowner rents his lot.)

Cost of a conventional home in 1967 averaged about \$21,500, and close to \$17,000 for those insured by the Federal Housing Administration.

Since 1967, the price of a conventionally built home has risen to an average of about \$27,000, but mobile home prices have not risen proportionately.

The terms? Monthly payments on mobile homes and conventional housing differ only slightly.

But, the mobile-unit buyer usually pays for his home in 5 to 7 years. The buyers of a conventional home generally has 30 years to pay for his.

The typical mobile homeowner in 1967 paid \$80 per month on his home and \$32 for a lot—a total of

\$112. The typical buyer of the conventional house had a monthly mortgage payment of \$126.41 on his house.

Consumer acceptance? To many, mobile homes still conjure up visions of coop-like trailers seen only on the peripheries of colleges, campgrounds, military bases, and migrant workers' camps.

But the mobile home has changed. For one thing, it has grown in size from a cramped 8' x 30' a decade ago to today's most popular size of 12' wide and at least 60' long. Newer designs provide for double-unit homes, shipped in two sections to be coupled together.

It has smartened its appearance, too. It has added amenities in the way of modern kitchen and bathroom fixtures, and interior furnishings. Its exterior design has been changed to overcome the boxy appearance of earlier years. And the newer concepts in mobile home courts—more spacious, well landscaped, with more recreational and service facilities—add to its livability.

Many rural development planners believe that mobile homes can help solve one of our biggest problems: providing low cost housing for low and moderate income families near new job opportunities in rural areas.

Moreover, the growth of the mobile home industry may be leading the way into an era of technological change throughout the housing industry. The economies of mass-produced housing—on or off wheels—are likely to be an important factor in our Nation's ability to meet its housing need in the future. (10)

WON'T YOU COME BACK MISS MUFFET?

The Cheese Industry Needs You

It's not very likely people will go back to eating curds and whey, but other uses must—and can—be developed for surplus whey if it isn't to become a water pollutant.

Leave a bottle of milk out of the fridge for a day or so, and you've got Miss Muffet's favorite concoction—curds and whey.

The whey is the cloudy liquid on top, and the curds, the cheesy looking stuff at the bottom.

Cheese comes from curds. Whey is the byproduct. If they had their druthers, many of the cheesemakers of America wouldn't produce a drop of whey.

Notwithstanding its virtues as a nutritious and cheap food (it costs less than salt), whey may become a real drug on the market. The supply has been growing steadily along with cheese production, which has gone up almost one-fifth since 1965. Last year less than half the whey supply was processed for market use.

When a cheesemaker is lucky enough to have buyers for his liquid whey, he generally sells it for a pittance. Frequently he gives it to farmers. But certain times of the year—when cheese output is at its height—many cheese factories can't even give the stuff away. They sometimes end up paying someone just to cart the whey from the premises, and dispose of it.

Disposing of raw whey isn't as simple as a lot of people think. More about this aspect later on.

The cheese industry might not be in this fix, if only today's consumers were as fond of whey as in the days of yore.

The general public now considers whey as food fit only for pigs. Even the word "whey" finds use as a less-than-complimentary ad-

jective: e.g., wheyblooded (meaning cowardly), wheybrained (weakminded) and wheyfaced (pale).

Centuries back, however, whey had all kinds of consumer uses. Literary references say Sir Walter Scott enjoyed it as a beverage. So did Samuel Pepys, who wrote in his diary in 1663 that he'd gone to a wheyhouse after the theatre. And there was whey borse and whey porridge. Visitors to one Austrian resort even took whey baths, which were supposed to make the skin soft and silky.

Whey was also believed to have medicinal qualities, good for people "afflicted with melancholy, leprosy, the elephantiasis, or eruptions over the whole body."

Today, whey has five main uses: in processed food products; animal feeds—either raw or processed; pharmaceuticals and chemicals; and as a liquid fertilizer.

Feed products constitute the major outlet (about 60 percent of utilization). Food uses are gradually increasing, however, for whey is a good source of protein, vitamins, minerals, and yet unidentified growth factors.

What used to be the primary outlet for liquid whey—livestock farms—is now less important. Twenty or 30 years ago many farmers mixed ground feed with skim milk, whey, or water, and fed the mixture to hogs. Now most hogs are fed dry feed.

Farmers can also use whey as fertilizer, provided they spread it when fields are moist and soil loose. But in the cold months, whey can't penetrate the soil and creates quite a stench once the weather warms up.

All told, U.S. cheese and cottage cheese factories last year turned out about 21 billion pounds of liquid whey. Of this, 6 to 7 billion

pounds were dried (half went for human food, the rest for animal feed). Another 2 billion were made into milk sugar and 1¼ billion were condensed. Of the remaining 11 billion, some was fed to livestock or used for fertilizer. And much—perhaps one-half of the 11 billion—was plain wasted.

Some went down the sewer. Some no doubt was dumped into our waterways. Neither means of disposal is satisfactory.

In lakes and rivers, whey leads to what's known in scientific jargon as eutrophication. Simply put, waterways become stagnant due to an abundance of nutrients—in this case, provided by whey. Certain organisms thrive on these nutrients. To do this they need oxygen and they draw it from the water, thus depriving fish and desirable plants of the very thing they need to live.

In a sewage plant, the presence of whey complicates the treatment process. The bacteria need much more oxygen to consume this nutritious material than for ordinary wastes. Decomposition takes longer, and runs up disposal costs.

According to one authority, a large cheese factory may put out a volume of waste that is equivalent to the wastes from 20,000 people.

All considered, it is imperative to develop new and broader uses for whey. Moreover, because of the diminishing demand for the liquid kind, most of the whey must be in a processed form.

That's easier to say than accomplish. Right now most cheese factories don't produce enough whey each day to justify whey drying facilities. So, raw whey would have to be assembled from a number of cheese plants. Beyond a certain radius, however—as few as 40-50 miles—it becomes



uneconomical to transport the bulky, liquid whey to a drying plant.

As to developing additional outlets for dried whey, USDA researchers believe it can be done ... though maybe not soon enough to absorb all the whey that may have to be diverted from wastage into processing channels over the next few years.

One potential outlet for whey, and for its derivative lactose, is the market now held largely by nonfat dry milk. The once burdensome supply of nonfat dry milk has begun to shrink at a time of quickening demand. Prices have gone up, and nonfat users are looking for substitutes. Use of nonfat dry milk in bakery goods has already fallen off dramatically, largely because of the price factor.

Possibilities are good that low cost whey can replace a sizable portion of the nonfat dry milk now going into frozen foods, fluid products, and bakery goods.

Another use with a growth potential is whey as a flavor fortifier. Added to food formulas, the lactose component of whey acts much in the same manner as monosodium glutamate. For example, it enhances the flavor in ice cream. And it gives a golden brown to bread crust, rolls, and breaded meat.

Several new uses for whey are being looked into. One is a high protein whey preparation combinable with vegetable proteins. The mix would afford a low cost and high quality protein product.

Just by expanding whey's present uses, however, it is conceivable that the industry could establish outlets for as much as half the new whey that would have to be processed if it isn't to become a pollutant. (11)

TRAFFIC BUILDERS AT THE SUPERMARKET



Food store retailers employ various methods, some less perceptible than others, to attract customers to their stores and to capture their week-to-week patronage.

Since most shoppers have several supermarkets to choose from, supermarket managers have been pressed into developing competitive strategies to capture your business and that of your fellow consumers.

Part of this competitive strategy is an emphasis on "traffic builders." As the name implies, these are items which get you into a store, and subsequently influence your decision to patronize that store rather than another.

The most important traffic builders are perishables—meat, fresh fruit, and vegetables. Shoppers are prone to think that the price and quality of other items

—such as canned goods, frozen foods, and household supplies—will not vary much among supermarkets.

The decision to return to a certain store week after week is, therefore, often based on the shopper's impression of the quality and price of its perishables.

A considerable portion of a supermarket's advertising is for meats, which are of importance as traffic builders. Most supermarkets advertise several cuts of beef and pork each week. Except in stores featuring "every-day-low-prices", these meats are usually advertised as specials. Broilers are also frequent specials, and have been used traditionally as traffic builders.

Perhaps you've noticed that the first department you enter in a supermarket is often the produce area. Fresh fruits and vegetables are purposely given this strategic

position: they are top level traffic builders.

Freshness and appearance matter most at the produce counter. And since there are almost no brands or grades indicated on the fruits and vegetables, they are bought almost solely on the basis of their appearance.

Each food retailing firm applies its competitive strategy in various ways to retain its regular clientele and to win consumer converts. Some focus their attention on the economy-minded customer by offering the lowest prices in the area.

Others maintain higher prices but also offer high quality products. Still others lure shoppers with a wide variety of merchandise, featuring the maximum number of brands for every item. And some stores boast a large selection of specialty and gourmet foods to entice the status seeker.

But no matter what the guise, a supermarket's competitive strategy is based essentially on its pricing policy.

Stores set a margin (gross profit as a percent of selling price) on all merchandise. The overall margin in supermarkets is around 23 percent, but the same margin isn't built into the price tag on every product.

Margins vary widely among departments in a supermarket, especially among the individual items within departments. For example, in the dairy section the margin on butter may be only 13 percent, but cheese's margin might be 25 percent.

Large supermarket firms usually set a "target margin" for each section—the average profit they wish to attain from each department as a whole.

Several factors influence the margin targets for certain products. Produce most often requires a relatively high margin as it is highly perishable and requires special care. Frozen foods also carry a high margin—about 30 percent—to cover such expenses as operation of freezer cabinets and backroom cold storage facilities.

In contrast, the margin carried by coffee (excluding instant) is under 10 percent. Coffee is frequently a "special," thus serving as a traffic builder.

Specials play a major role in nearly every supermarket's competitive pricing policy. The products a store manager decides to special generally meet certain criteria:

- The consumer is familiar with the item and knows its regular price.
- The special price is significantly lower, so the shopper recognizes a "savings."
- The customer knows how much of the product he usually buys, and the quantity is substantial enough to make a price reduction important to him.
- Demand for the commodity

is generally quite stable.

- A reduction in price won't be construed as a reduction in quality. (12)

Dining Out or Dining at Home; What's Built Into the Food Bill?

Probably most people at one time or another grimace at the size of their restaurant tab. The same food, eaten at home, would be a lot cheaper, they are thinking.

As in other businesses, prices charged by food stores and eating establishments evolve from expenses incurred in getting a product to the consumer.

The biggest expense to both businesses is the initial cost of the food that lines their grocery shelves or gets billing as the "specialty of the house." The cost to food stores is about four-fifths of the final sales price. But restaurants buy their food for around half the price they eventually charge their customers. (This includes processing, wholesaling, and transporting food from farm to retailer.)

For eating places, the gross margin—difference between original food costs and final sales—is $2\frac{1}{2}$ times that of food stores. And this is the difference the consumer feels when dining away from home.

Both businesses pay their operating expenses from their gross margins. A larger gross margin is required by restaurants because of the higher cost of functions and services they provide.

Despite these differences, operating expenditures as a share of gross margin are *proportionately* similar for both food stores and eating places.

For example, labor—the largest operating expense—takes slightly over 40 percent of the gross margin of each business. As a share of total sales, however, the wage picture looks far

different: 20 percent of the average restaurant tab goes for employee wages compared with 8 percent of the average food store bill.

Wage rates in eating places, though they take a slightly larger share of gross margin and a far bigger chunk of the sales dollar, are about a third lower than in food stores. But since 1967, restaurant employees' pay has been increasing at a faster rate.

Wage hikes for restaurant workers have been associated with accelerated prices charged to customers. In 1969, eating establishments recorded a sales growth of over 40 percent from 1963—caused primarily by "upping" their prices.

As with labor, capital costs—rent, depreciation, and interest—take roughly similar shares of the gross margin of each industry, but widely different shares of total sales.

Rent is the largest capital cost, taking about 4 cents of every dollar paid at a restaurant. Rent's average share of the food store dollar is about a penny.

All other expenditures—advertising, utilities, supplies, taxes, repairs, etc.—take a proportionately larger bite of sales in restaurants than in grocery stores. But again, their share of gross margin is close to equal for each business—a little over 30 percent.

The profit food stores and eating establishments make is what's left of their gross margins after expenses. And the remainder of these margins is incredibly close: 11.9 percent for eating places, and 12.5 percent for food stores.

But with a margin $2\frac{1}{2}$ times larger than food stores, restaurants take a proportionately larger profit as a share of total sales—as might be expected.

The net profit built into the average restaurant bill is around 6 cents for every dollar, compared with just under 3 cents for each dollar spent at the grocery store checkout. (13)

In the Latin Sphere



Guatemalan agriculture is looking up.

Thanks to higher output of coffee and cotton in the early 1960's and of food crops in the last half of the decade, production has risen substantially during the past 15 years. Even on a per capita basis it has gone up over 10 percent.

During the same period, the real per capita gain in the gross domestic product (GDP) was about 3 percent annually.

The share of the GDP contributed by agriculture, forestry, and fisheries has declined in the past 15 years. It was 27 percent of the total in 1969.

A new rural development plan to start in 1971 promises institutional reforms and aid to agriculture that should continue to push production up this decade, if only moderately. Supplies of food for domestic use, and of export commodities as well, are expected to reflect this increase.

In the longer haul, agricultural advances will depend not so much on the availability of physical resources as on the political and economic climate and the basic agricultural system.

To date, the effectiveness of development plans has been ham-

pered by inadequate farm credit, a low level of education, poor transportation, and guerrilla activity by dissident groups throughout the country.

About one-third of Guatemala's land area is in farms. Less than 14 percent is cropland and about 9 percent is in pasture. The non-farm area is largely undeveloped except for scattered forest activities.

Owners operated almost 58 percent of all farms in 1964, slightly more than in 1950.

Guatemalans on the smaller farms still cling to the hoe and machete as their principal farm implements. But operators of the large commercial plantations, and some specialized farms, are adopting modern farming methods.

They have stepped up their use of fertilizer, irrigation, pesticides, improved planting materials and breeding stock—and machinery, in particular.

Mechanized clearing of land is becoming more common, and some machinery is used in tobacco, vegetable, rice and corn fields. Most of it, however, is used on cotton, sugarcane, and banana plantations.

The Agency for International Development (AID), the Rockefeller Foundation, and other organizations have cooperated with the Ministry of Agriculture in developing disease resistant and high yielding crop varieties.

Improved varieties of rice, wheat, corn, grain sorghums, and beans have all been introduced. But subsistence farmers are slow to change from traditional varieties to the newer hybrids.

Livestock and livestock products account for more than one quarter of agriculture's contribution to Guatemala's gross domestic product. Cattle are by far the principal livestock, though hogs, sheep, and goats are important to certain areas. Poultry numbers are increasing.

Agriculture is the major source of foreign exchange earnings. Coffee, the principal commercial crop, is the Number 1 export. Cotton, sugar, bananas, and beef are also important foreign exchange earners.

The United States is Guatemala's principal trading partner, for both imports and exports. We bought an estimated \$70.3 million worth of Guatemala's agricultural products last year and exported about \$10.4 of our own farm products to Guatemala. (14)



Both Canada and the United States count on areas south for their banana supply, as Nature didn't endow them with tropical climates.

The United States is the world's largest and oldest market for bananas. Though Canadian imports are about a tenth of ours, Canada is also a major market for southern suppliers.

Both countries show similar import patterns as they both obtain bananas from the same countries and distribution channels. Many of the bananas that reach Canadian tables are transported via truck or rail from U.S. ports.

A number of Central American countries and Ecuador compete for American and Canadian markets. Ecuador cornered nearly half the U.S. market and almost a third of the Canadian in 1963. But by 1968, Ecuador's share of both markets had slipped to about a fifth.

Central America has emerged as the major supply area, with Honduras, Panama, and Costa Rica capturing substantial market portions.

Unlike many other less developed countries where all but a mere fraction of the crop is used locally, these three Central American countries produce bananas primarily for export. As of 1968, each country supplied about a quarter of all North America's bananas.

Central America began to capitalize on its proximity to U.S. and Canadian markets when larger banana supplies became available. This abundance stemmed from extensive plantings in 1963 of a new variety of the Cavendish banana called the Valery—a product of intensive research begun in 1958 to develop a variety resistant to the highly destructive Panama disease.

In addition to being resistant to the Panama disease, the new Cavendish banana has several other advantages over the other main exporting variety, the Gros Michel: it has a higher yield per

acre, and it is less susceptible to damaging winds, as it grows closer to the ground.

The United States holds no trade preferences, and doesn't impose quotas or duties on banana imports. Canada, however, levies a small duty on bananas from non-Commonwealth countries.

Both countries are essentially wide open markets, and are not necessarily restricted to bananas from Ecuador and Central America only. An exporter's market share depends primarily on how competitive his prices are with other exporting countries, and transportation costs to U.S. ports.

Since 1948, banana imports into the United States have averaged a 2-percent increase per year. Canadian imports have averaged about a 4½-percent annual increase.

Per capita imports by other major importing countries increased rapidly after 1957, but leveled off in the U.S., Canada, and New Zealand during this period. By 1957, these countries had already reached an apparent saturation point of 9 to 10 kilograms (around 20 pounds) per person.

Canada and the United States are the only major developed countries with a declining per capita use of fresh fruits since 1957. The reason: Americans and Canadians have been eating more processed (especially frozen) fruit products since the mid-1950's. Per capita banana consumption, however, has remained fairly stable.

Projections for 1980 indicate that U.S. and Canadian consumers are not likely to be eating

much more than the current 20 pounds per capita—the apparent saturation level. (15)



arrowroot once long enjoyed the reputation of being one of the purest and most "aristocratic" form of natural edible starches. But like some other aristocrats, its place was taken over a few years ago by "pretenders"—synthetic starches.

The 90,000 inhabitants of tiny St. Vincent Island, in the Caribbean, suffered most from arrowroot's economic downfall.

St. Vincent always held—and still does—a virtual monopoly in world production of the perennial plant that is cultivated for its white and starch underground rhizomes. (Processed, these yield a highly digestible flour particularly desirable for use in baby and invalid foods.)

Now things are once again looking up for St. Vincentians.

There's been an upsurge of interest in arrowroot—attributed to a rising belief that arrowroot starch has some qualities lacking in synthetic starches.

St. Vincent recently signed a 2-year contract with a U.S. firm for delivery of 6 million pounds

of arrowroot starch, and has an option to sell another 2 million pounds to the U.S. client. It also has a contract with a British firm for 2 million pounds.

How much these contracts have brightened St. Vincent's outlook can be gauged by relating their average yearly value in 1958-62 (\$850,000) to the island's total exports (about \$3½ million).

For the islanders these sums are staggering. St. Vincent's economic progress has lagged behind that of Caribbean neighbors. By 1967, the income of the average St. Vincentian had reached only \$192 a year. By now, perhaps a dollar or so more.

Tourism has helped offset some of the island's adverse trade balance. Remittances from workers overseas and annual aid grants from the United Kingdom have also helped to some extent. Politically, St. Vincent is an associated state with the U.K.

Some years ago, production of arrowroot flour was the island's main industry. In 1955, it accounted for as much as 52 percent of St. Vincent's exports.

By 1969, weakened demand had reduced operating factories to four; planted area to around 1,000 acres; grower numbers to 164. Only 24 had large-scale operations. Chronic unemployment—always a problem, aggravated by population growth—got more critical as jobs in the arrowroot industry fell from 4,000 to 1,500.

If the recent contracts rejuvenate the industry, it will be a boon to at least some of the island's jobless—as no machinery has been adapted to harvesting, and much hand labor is essential.

Wages are above-average both in field and factory. But workers consider the job menial. This makes expansion difficult, and serious problems may be faced in filling the new orders.

To speed up the processing lest growers' roots rot in storage, the government itself is leasing one of the commercial starch factor-

ies and overseeing the renovation of another.

Over half of St. Vincent's starch is traditionally sold to the United States and Canada; lesser quantities go to the U.K. and Trinidad and Tobago. (16)

Illinois Leads Field of States In Fiscal '70 Farm Export Returns

Exporting U.S. farm products is a "big league," all-State enterprise.

Together, our 50 States shipped a near-record \$6.6 billion worth of U.S. farm products to foreign customers in fiscal year 1970. This represents a fifth of world agricultural exports and, for U.S. farm exports, a rise of 16 percent from the \$5.7 million in fiscal year 1969.

Illinois is our largest single exporter of agricultural products, accounting for \$650 million—nearly a tenth of the total in 1969/70. This State is the No. 1 exporter of soybeans, feed grains, protein meal, and soybean oil, as well as an important shipper of wheat, lard, tallow, meats, and hides and skins.

Ten States accounted for some \$4 billion, or three-fifths of U.S. agricultural exports, in 1969/70. They were:

Illinois (\$650 million), California (\$556 million), Iowa (\$505 million), Texas (\$422 million), North Carolina (\$406 million), Kansas (\$314 million), Indiana (\$304 million), Arkansas (\$296 million), Minnesota (\$276 million), and Nebraska (\$270 million).

Three geographic regions, comprising 16 States, accounted for 63 percent or \$4.2 billion of our agricultural export total: the East North Central Region (\$1.3 billion), the West North Central Region (\$1.9 billion), and West South Central Region (\$986 million).

States with sizable shares of

certain commodities included Florida and California, citrus; Illinois and Iowa, soybeans and feed grains; Washington, apples; Texas and Arkansas, rice; Minnesota and Wisconsin, dairy products; Kansas and the Dakotas, wheat and flour; and the Carolinas and Virginia, tobacco.

For seven major agricultural products—wheat, rice, soybeans, tobacco, cotton, cattle hides, and tallow—our exports equaled one-third to two-thirds of the year's production (or farm sales).

Production from about 1 of every 5 harvested acres goes abroad, and the U.S. farmer gets about one seventh of his income from these exports. (17)

Feuders and Suitors Find Somali Camel a Useful Beast of Barter

If farm management seems complicated and it's difficult to get the books to balance, you might try the Somali accounting system.

This east African nation, about the size of California and Oregon combined, contains some localities that are on the camel standard.

In these areas, camels are used to pay for much of the cost of everyday living.

"Camel currency," also provides transport for the family property, as well as milk, meat, hides, hair, and fuel.

Camels are used too as the bargaining medium in settling feuds between individuals and clans. And often, when a suitor is selecting a bride, camels will be presented to the brides' parents as declarations of serious intentions and to seal the new happy relationship.

The reported price for family feuds is 100 camels to compensate for a man's life, and 50 for a woman's. The number of camels to influence the parents of a bride is negotiable. (18)

Recent Publications

ECONOMIC ASPECTS OF DAIRYING IN THE NORTHEAST. Floyd A. Lasley and Charles N. Shaw, Marketing Economics Division, AER 188.

Milk production in the Northeast is predominantly for the fluid markets of large metropolitan centers. However, these markets have carried large volumes of reserve supplies which are used in manufactured dairy products such as ice cream and cottage cheese, as well as the hard-manufactured products (cheese, butter, and powder).

FARM INCOME STATE ESTIMATES 1949-1969. Economic and Statistical Analysis Division, FIS-216.

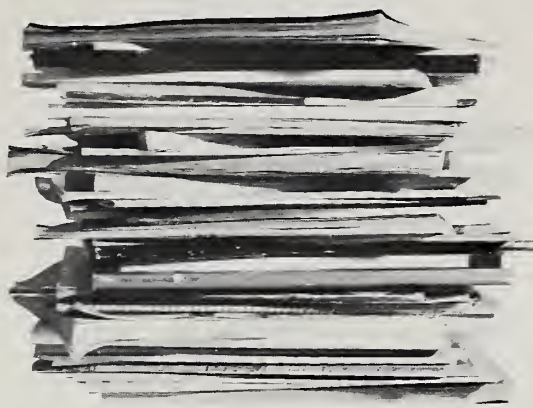
The tables in this report, in most cases, contain State estimates of gross and net farm income and production expenses from 1949 through 1969; data for Alaska and Hawaii start in 1960. Cash receipts from farm marketings and direct government payments to farmers are shown in detail for 1967-69.

POWER AND EQUIPMENT ON FARMS IN 1964, 48 STATES. Paul E. Strickler, Farm Production Economics Division, Stat. Bull. No. 457.

U. S. farms in general have been equipped with relatively small machines. However, beginning with the last decade, the trend has been toward larger and larger pieces of machinery—including power units and equipment to accompany them, along with self-propelled units.

GRAIN PRICE FORMATION AND GRAIN PRICE REPORTING IN ITALY. Hans G. Hirsch and Ann Miller Watkins, Foreign Development and Trade Division, FAER 61.

Italy is one of the top markets for U. S. corn. The American farmer's share in this market grew to almost one-half of 5.4 million tons of imports in 1966.



The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.

Since then, total corn imports by Italy and the U. S. share in them have declined; and the market outlook for U. S. supplies is worrisome.

PRICES AND SPREADS FOR POTATOES, SWEETPOTATOES, AND OTHER SELECTED VEGETABLES SOLD IN FRESH MARKETS, 1962/63-1966/67. Victor G. Edman and Alfred J. Burns, Marketing Economics Division, MRR 901.

This report contains monthly and seasonal data on prices and price spreads for 15 commodities sold fresh in selected major markets during two 1-year periods.

CONSUMER ACCEPTANCE OF A NEW BACON SUBSTITUTE. Roy S. Corkern and Philip B. Dwoskin, Marketing Economics Division, ERS 454.

A 6-month market test in In-

diana evaluates consumers' reaction to synthetic bacon strips fashioned primarily from vegetable protein. Sales data from store audits indicate a favorable response by consumers. (See October 1970 Farm Index.)

FOOD PRICES: BEFORE AND AFTER DISTRIBUTION OF WELFARE CHECKS . . . LOW-INCOME AREAS, SEVEN CITIES, 1969. Eileen F. Taylor, Marketing Economics Division, MRR 907.

The primary objective of the study was to check prices of selected food items in low-income area stores of seven cities before and after the issuance of welfare checks. No significant variations showed up.

CASH WAGES AND PERQUISITES: RECEIVED BY REGULAR HIRED FARM-WORKERS, 1966. Verner N. Grise and Walter E. Sellers, Farm Production Economics Division, Stat. Bull. No. 458.

Regular hired farmworkers who received perquisites earned 46 percent more wages in 1966 than those working on strictly a cash basis. Those provided perquisites received an average annual salary of \$3,571 while those paid cash only earned \$2,450. Those employed on vegetable, fruit and nut, and livestock farms received the highest wages while tobacco and cotton workers earned the lowest salaries.

FARMERS' PESTICIDE EXPENDITURES IN 1966. Helen T. Blake, Paul A. Andrienas, Robert P. Jenkins, Theodore R. Eichers, and Austin S. Fox, Farm Production Economics Division, AER 192.

Nearly half the \$243 million spent for crop-pesticide materials by U.S. farmers in 1966 were for herbicides. About 45 percent of all such pesticide expenses were accounted for by two crops—corn and cotton. (See August 1970 Farm Index.)

Addresses of State experiment stations:

This ready reference list for readers wishing to order publications and source material published through State experiment stations will be updated again in July.

STATE	CITY	ZIP CODE	STATE	CITY	ZIP CODE
ALABAMA	Auburn	36830	MISSISSIPPI	State College	39762
ALASKA	College, U. of Alaska	99701	MISSOURI	Columbia	65201
ARIZONA	Tucson	85721	MONTANA	Bozeman	59715
ARKANSAS	Fayetteville	72701	NEBRASKA	Lincoln	68503
CALIFORNIA	Berkeley	94720	NEVADA	Reno	89507
	(101 Giannini Hall)		NEW HAMPSHIRE	Durham	03824
	(145 Mulford Hall)		NEW JERSEY	New Brunswick	08903
	Davis	95616	NEW MEXICO	Las Cruces	88001
	(217 Mrak Hall)			NM State University (P.O. Box 3-AG)	
	(1018 Haring Hall)		NEW YORK	Ithaca	14850
	Los Angeles	90024		(Cornell Station)	
	Parlier	93648		Geneva	14456
	Riverside	92502		(State Station)	
COLORADO	Fort Collins	80521	NORTH CAROLINA	Raleigh	27607
CONNECTICUT	New Haven	06504		(Box 5847)	
	(P.O. Box 1106)		NORTH DAKOTA	Fargo	58102
	Storrs	06268		(State University Station)	
DELAWARE	Newark	19711	OHIO	Columbus	43210
FLORIDA	Gainesville	32601		(Ohio State University)	
GEORGIA	Athens	30601		Wooster	44691
	Experiment	30212	OKLAHOMA	Stillwater	74074
	Tifton	31794	OREGON	Corvallis	97331
HAWAII	Honolulu	96822	PENNSYLVANIA	University Park	16802
IDAHO	Moscow	83843		(106 Armsby Building)	
ILLINOIS	Urbana	61801	PUERTO RICO	Rio Piedras	00928
INDIANA	Lafayette	47907	RHODE ISLAND	Kingston	02881
IOWA	Ames	50010	SOUTH CAROLINA	Clemson	29631
KANSAS	Manhattan	66502	SOUTH DAKOTA	Brookings	57006
KENTUCKY	Lexington	40506	TENNESSEE	Knoxville	37916
LOUISIANA	Baton Rouge	70803	TEXAS	College Station	77843
	(Drawer E		UTAH	Logan	84321
	University Station)		VERMONT	Burlington	05401
MAINE	Orono	04473	VIRGINIA	Blacksburg	24061
	(106 Winslow Hall)		WASHINGTON	Pullman	99163
MARYLAND	College Park	20742	WEST VIRGINIA	Morgantown	26506
MASSACHUSETTS	Amherst	01002	WISCONSIN	Madison	53706
MICHIGAN	East Lansing	48823	WYOMING	Laramie	82070
MINNESOTA	St. Paul	55101		(University Station Box 3354)	
	(St. Paul Campus)				

Article Sources

1. G. W. Dean, G. A. King, Cr. Shumway, and H. O. Carter, Univ. of Cal. Agr. Expt. Sta., cooperating with FPED. *Projections of California Agriculture to 1980 and 2000*, Cal. Expt. Sta. Bull. 847.*
2. David Brewster and Gordon Powers, ESAD, and Bureau of Indian Affairs. (Special material.)
3. *Fats and Oils Situation*, FOS-254.
4. Austin S. Fox and others, FPED. Restricting the Use of Phenoxxy Herbicides—Costs to Farmers (manuscript).
5. Richard B. Smith, FPED, and Earl O. Heady, Iowa State Univ. Pay Packages of Full-time Employees in Eastern Iowa (manuscript).
6. David Brewster, ESAD, J. Richard Grant, Statistical Reporting Service, and Dean Quirin, Bureau of Census. (Special material.)
7. Thomas F. Hady, EDD. (Special material.)
8. Arthur J. Walrath, EDD, G. W. Burkhart and W. L. Gibson Jr., Virginia Polytechnic Institute. What Will Become of Your Property? (manuscript).
9. E. Grant Youmans, EDD. Generation and Perceptions of Old Age: An Urban-Rural Comparison (speech presented to Gerontological Society, Toronto, Canada, October 22, 1970).
10. Robert E. Freeman, EDD. *Rural Housing: Trends and Prospects*, AER-193; also Donald Steward and James Mikesell, EDD. (Special material.)
11. Anthony G. Mathis, ESAD. *Dairy Situation*, DS-332, and special material.
12. Alden C. Manchester, MED. Pricing Milk and Dairy Products (manuscript).
13. Terry L. Crawford and Leland W. Southard, MED. *Comparison of Structures of Food Stores and Eating and Drinking Places*, ERS-455.
14. Kathryn H. Wylie, FRAD. A Survey of Agriculture in Guatemala (manuscript).
15. Arthur B. Mackie and Jon E. Falck, FDTD. World Demand Prospects for Bananas in 1980 (manuscript).
16. Wilbur F. Buck, FRAD. (Special material.)
17. Isaac E. Lemon and M. Louise Perkins, FDTD. "U.S. Agricultural Export Shares by Regions and States, Fiscal Year 1970." *Foreign Agricultural Trade of the U.S.*, October 1970.
18. H. Charles Treacle, FRAD. Agricultural Outlook for the Somali Republic (manuscript).

INDEX to the Farm Index

January through December 1970

References in this index are by month and page.

Month/Page

A

Advertising: food industry, 3/9; farm equipment, 10/13.
Africa: land tenure, 2/19.
Agribusiness: job opportunities, 8/11.
Agricultural development: Africa, 2/19; Brazil, 7/19; Colombia, 7/20; Greece, 7/20, 9/18; Guatemala, 12/16; India, 7/18; Malagasy, 9/19; Mexico, 7/19; Nigeria, 7/20; Pakistan, 10/18; Romania, 10/20; Taiwan, 7/18; Upper Volta, 5/20; Uruguay, 3/20; Western Europe, 2/21; wheat trade, 10/17.
Alaska: farm output, 10/6; reindeer production, 12/5.
Alfalfa: dehydrated, 2/13; California yields, 9/8.
Andean Pact: 2/21.
Arrowroot: 12/17.
Asparagus: California yields, 9/8.
Australia: trade with Japan, 6/20.
Away-from-home eating: national survey, 8/17; prices, 8/18, 12/15.

B

Bacon synthetic: 10/12.
Bananas: trade, 12/17.
Banks: credit practices, 9/6; farm mortgage lending, 2/3, 2/4, 3/4, 5/3; tight money, 2/3. See also Credit.
Barley: alternate crop, 4/4.
Beans: edible dry consumption, 10/15; processing in South, 4/8, 11/14.
Beef: consumer preferences, 3/15; consumption, 2/18, 3/15, 8/4, (on-farm) 4/13; industry, 8/4; price spreads, 7/12; production, 8/4; Southeast, 11/7.
Beeswax: 4/16, 5/13.
Beverages: low calorie, 2/16.
Birthrate: U.S., 7/9.
Box cars: 6/12.
Brand names: value to shoppers, 6/16, 9/17.
Brazil: coffee, 10/13; development, 7/19.
Butter: 1/15.

C

California: corporate farms, 5/5; crop yields, 9/8; land use, 12/4.
Camels: currency in Somalia, 12/18.
Castor oil: stocks, 2/15.
Catfish: 7/6.
Cattle: Colorado feedlots, 5/4; cow-calving in West, 9/7; feeding, 2/6, 8/5, 9/7, 11/7 (Southeast); grain fed, 11/8; Great Plains, 11/19-28; industry outlook, 8/4; production, 8/4, 9/7.
Census of Agriculture: 1/6, 9/2; definition of farm, 10/8; past and present, 12/8.
Cereals: breakfast foods, 8/14.
Chain stores: grocery sales, 3/17.

Cheese: whey byproduct, 12/12.
Cherries: mechanization, 6/5.
Chicken carryout market: 7/6.
China, Mainland: 6/21.
Chutney, mango: 6/21, 6/24.
Cigarettes: cutback in use, 9/13.
Coconut oil: stocks, 2/15; use, 9/15.
Coffee: supplies, 10/13.
Colombia: development, 7/20.
Computers: factor in feed prices, 8/14.
Conglomerates: food firm mergers, 5/11, 6/14; growth, 4/9; farm machinery firms, 11/13.
Conservation: Great Plains, 11/26. See also Flood Control.
Consumption, food. See Food and Per capita consumption.
Contract arrangements: 2/6.
Corn: blight, 10/2; pest control, 7/3, 10/2; shipping, 1/14; use, 8/14; yields, 7/4.
Corn oil usage: 9/15.
Corporate farming: 31,000 largest farms, 1/3; California, 5/5.
Cotton: clothing use, 1/16, 1/24; competition from synthetics, 1/15, 1/16, 1/24, 10/2; farmer's share of cotton dollar, 8/14; ginning, 10/13; Hong Kong imports, 10/20; mechanization, 4/4; pest control, 7/3; retail marketing margins, 8/14.
Cottonseed oil: usage, 9/15.
Credit: terms, 9/6; for farm expansion, 6/7; for the poor, 5/16; sources and rates, 2/4; tight money, 2/3, 5/3; wife a factor, 10/10. See also Banks.

D

Dairy: herd size efficiency, 9/6; outlook, 6/4; production efficiency, 10/7. See also Cheese and Milk.
Debt: farm mortgage, 3/4; interest rates, 2/4.
Denmark: diet shifts, 9/20.
Developing countries: definition, 5/17; diet deficiencies, 5/19; farm output, 7/17; wheat exports, 10/17. See also Agricultural development.

E

Education: North Dakota, 6/11; rural, 4/6, 6/11, 11/12.
EFTA: 2/21.
Eggs: breaking industry, 1/12; Connecticut, 9/7; grades, 1/14; fragility, 11/14; marketing trends, 6/14; New Jersey, 6/6; pricing system, 6/15.
Employment: gains in manufacturing, 3/7, 8/9-10; impact of mechanization, 5/10, 6/5; rural growth rates, 8/10.
Environment: See Pollution.
European Community: farm surpluses, 3/18, 9/20; food prices, 6/18; productivity, 2/21; trade, 3/19; trade barriers, 5/20.
European Free Trade Association: 2/21.
Europe, West: productivity, 2/21.
Exports: acreage share, 9/9; balance of trade, 2/2; fiscal year, 9/3, 9/9; grain, 5/20; Great Plains, 11/23; major commodities, 9/3, 9/9; oilseeds, 11/17; poultry, 5/20; States' share, 12/18; to EC, 5/20; to Japan, 6/20, 9/3; to U.K., 9/20.

F

Farmer's production efficiency: 9/9.
Farming: part-time, 10/11; women, 10/10.
Farms: age of owners, 1/3, 5/10; definition, 1/3, 10/8; family, 1/4, 2/4; management, 1/4, 1/6, 2/6, 6/3; numbers, 4/4, 9/9; 31,000 largest, 1/3; U.S. farm facts, 9/9.
Feed grains: exports, 3/13, 8/19; 1980 projections, 11/8; price ratio, 2/6; rye, 11/8; world demand, 8/19.
Feedlots: Colorado, 5/4; regional shifts, 8/5; Southeast, 11/7; western, 2/6.
Feeds, livestock: alfalfa, 2/13; high protein, 8/14; price ratios and spreads, 2/6, 8/14; soybean meal, 8/14.
Fertilizer: garden center sales, 7/16; Illinois, 5/14; nonfarm use, 4/9, 9/9; total use PNK, 9/9.
Financing. See Bank and Credit.
Fishing: 1/9, 8/10.
Flood control: estimating benefits, 11/5; federal-local costs, 11/11; reservoirs, 6/10.
Flour: consumption, 7/16.
Flowers: holiday sales, 2/24.
Food: consumption trends, 1/15, 3/17; expenditures, 3/17, 4/13, 6/17; four basics, 9/16; homegrown, 4/13; marketing bill, 10/14. See also Per capita consumption, Nutrition and Processing, food.
Food prices: 5/24; consumer attitudes, 6/16, 10/16; foreign, 6/18, 10/20; increases, 8/18; link to welfare checks, 11/15; market basket, 5/24.
Food stamps: 4/11.
Foreign trade: See Exports and Imports.
Frozen foods: fish, 6/17; imported produce, 5/20.
Fruit: frozen imports, 5/20; peaches, 8/15.

G

Ginning: Texas capacity, 10/13.
Golf links: fertilizer on, 4/9.
Grains: diversification of industry, 4/10; exports, 3/13; in EC, 3/19; 1980 projections, 11/8. See also Rice, Corn, and Wheat.
Grange, national: 1/5.
Grapefruit crystals: 11/16.
Grasses: Great Plains, 11/23.
Great Plains: conservation, 11/26; Kansas wheat king, 11/22; irrigation, 4/5; map, 11/19; overview, 11/19-28; research bibliography, 3/22.
Greece: development, 7/20, 9/18.
Guatemala: agricultural economy, 12/16.

H

Hail insurance: 1/4, 7/5.
Haiti: development, 1/18.
Hawaii: land values, 4/3.
Health: facilities, 3/5, 4/6; urban vs. rural, 11/12.
Herbicides: 7/3, 8/6; phenoxys, 12/7.
Hired farmworkers: female, 10/11; foreigners, 5/6; Northeast shortage, 3/6; numbers, 6/11, 7/10; on big farms, 1/4; skilled, 8/6; wages, 5/6, 7/10; workdays, 7/10. See also Labor.
Honey: 5/13.
Hospitals and doctors: 3/5; urban vs. rural, 11/12.
Housing: mobile homes, 8/2, 8/11, 12/11.

I

Imports: balance of trade, 2/2; bananas, 12/17; frozen produce, 5/20; tobacco, 10/20.
Income: farm, 2/9, 3/15, 4/2, 9/9; from recreation, 1/9; Great Plains, 11/25; off-farm, 4/7, 10/11; share spent—for food, 3/17, 6/17, 8/18, 10/16; for pork and beef, 7/12; for nonfood items, 10/16.
India: agriculture vs. U.S., 10/19; development, 7/18; mango exports, 6/21.
Indians, American: 11/24.

Insurance: hail, 1/4, 7/5; types, 7/5.
Irradiation: microwave ovens, 7/11; perishables, 10/14.
Irrigation: flood control reservoirs, 6/10; pastures, 5/6, 8/7; salt-up, 11/4; Texas water level, 4/5.

J

Jamaica: food marketing, 1/19.
Japan: billion dollar customer, 9/3; U.S.-Australian trade, 6/20.

K

"Kansas Wheat King": 11/22.
Kenaf: potential acreage, 11/6.

L

Labor: agribusiness needs, 8/11; Alaska, 10/6; farm man-hours, 9/9; foreigners, 5/6; hired farm, 1/4, 3/6, 6/11, 7/10, 8/6; impact of mechanization, 5/10; 7/10; Negro, 5/10, 7/2, 7/10, 9/9; wages, 3/6, 5/6, 6/11.
Lamb: consumption, 2/18; marketings, 10/5; numbers, 10/5.
Land: California use, 12/4; cropland area, 5/7, 9/9; farm acreage, 4/4; Northeast use, 4/6; riceland leases, 8/7; values, 10/7, 11/12. See also Real estate.
Lard: 1/15, 9/15.
Less developed countries: definition, 5/17; diet deficiencies, 5/19; farm output, 7/17; wheat exports, 10/18. See also Developing countries and Agricultural development.
Livestock: feed lots in West, 2/6; feed price ratios, 2/6; Great Plains, 11/19-28; waste disposal, 6/10, 9/4. See also Cattle and Feeds, livestock.
Low income families. See Poverty.

M

Machinery: advertising, 10/13; buying on credit, 6/3; grain driers, 8/7; harvesting, 4/2; investment for expansion, 6/7; manufacturers, 11/13; own vs. rent, 6/3; tractors, 3/24, 4/2; values 3/24; West Europe, 2/21. See also Mechanization.
Manure disposal: 6/10; liquid, 9/4.
Mangoes: Indian exports, 6/21.
Marketing: conglomerates, 4/9, 5/11; market basket cost and farmer's share, 5/24; marketing bill, 10/14, (for pork and beef) 7/12, (processor share) 5/12.
Meat and meat products: beef preferences, 3/15; consumption trends, 2/18, 5/16; homegrown, 4/13; processing costs, 5/13.
Mechanization: cherries, 6/5; cotton, 4/4, 6/5; grains, 8/7; tomatoes, 6/5; tobacco, 5/10, 6/5; West Europe, 2/21.
Medical services: rural, 3/5, 11/12.
Mexico: development, 7/19.
Microwave ovens, 7/11.
Migration: trends, 2/11, 6/11.
Milk: manufacturing, 2/13, 8/12; marketing, 8/12; sanitary regulations, 7/13; standards, 8/12.
Mink production: 9/9.
Mobile homes: 8/2, 8/11, 12/11.

N

Negroes: poverty, 2/8; farm population, 7/2; in tobacco, 5/10.
Nepal: trade, 5/19.
"New towns": 1/11.
Nigeria: development, 7/20.
Nursery products: Southern States, 7/15.
Nutrition: basic foods, 9/16; education, 5/16; levels of income, 4/11; programs, 3/12, 3/17, 4/11; school lunch, 3/17.

O

Oils: castor, 2/15; coconut, 2/15; palm, 2/15; soybean, 2/14, 9/15; sunflower-seed, 9/8; use, 7/16.
Oilseeds: exports, 3/13; world trade projections, 11/17.
Okra: canning in South, 11/14.
Outlook Conference: 2/2, 3/11.
Ozarks: poverty, 2/7.

P

Pacific Islands: exports, 2/21.
Palm oil: stocks, 2/15.
Paper plants: Pickens, Miss., 6/8; Codorus Creek, Pa., 7/8.
Part-time farming: 10/11.
Peaches: in South, 8/15.
Peanuts: handling costs, 6/13; oil usage, 9/15; pest control, 7/3.
Per capita consumption: beans (dry), 7/16; carbohydrates, 7/16; cigarettes, 9/14; cornmeal, 7/16, 8/14; eggs, 8/2; fats and oils, 7/16; fish, 6/17; potatoes, 7/16; poultry, 7/6; rice, 7/16; tomatoes, 3/14; trends, 4/13; wheat and flour, 7/16.
Pesticides: farm use, 7/3, 8/6; herbicides, 8/6, 12/7; pollution role, 7/3.
Petroleum proteins: 2/17.
Planting intentions: accuracy, 5/2.
Pollution: animal wastes, 6/10, 9/4; Codorus Creek, 7/8; pesticide role, 7/3.
Population: birth rate, 7/9; developing countries, 7/17; family structure, 4/13; farm numbers, 4/4, 7/2, 8/2, 9/9; Great Plains, 11/25; Indian, 11/24; Negroes on farms, 7/2, 5/10; percent on farms, 9/9; U.S. projections, 7/9.
Pork: consumption, 2/18; on-farm use, 4/13; price spread, 7/12.
Potatoes: use, 1/15; production, 3/10; Maine, 6/9; mechanization, 6/5, 6/9.
Poultry: carry-out, 7/6; Connecticut, 9/7; exports, 5/20; outlook, 7/6; processed prices, 6/14; Southeast, 11/8; turkey production, 1/6, 7/6; vertical coordination, 6/14.
Poverty: attitudes, 1/7; characteristics, 2/7; cost of being poor, 5/15; medical gap, 11/12; old, 1/7; welfare checks and food prices, 11/15.
Price spreads: fats and oils, 9/15; livestock feeds, 8/14; pork and beef, 7/12.
Pricing systems: selected commodities, 6/15.
Processing, food: beans (green), 4/8; conglomerates, 4/9; grapefruit crystals, 11/16; income of firms, 2/15; industry scope, 5/12; merger trends, 4/9, 6/14; microwave ovens, 7/11; peaches, 8/15; potatoes, 3/10; poultry, 6/14; tomatoes, 8/14; whey, 12/12.

R

Rabbit raising: 3/8.
Real estate, farm: Hawaii, 4/3; Northeast, 4/6; taxes, 2/9; U.S. values, 11/12.
Recreation: financing, 1/9; fishing, 1/9, 8/10; hunting, 1/9; leisure preferences, 1/8, 1/10, 8/10; public vs. private, 1/8, 6/10; water-oriented, 1/8, 1/9, 6/10, 8/10; Wisconsin resorts, 8/10.
Reindeer: Alaska, 12/5.
Restaurants: See Away-from-home eating.
Retirement: attitudes, 2/11, 12/10.
Rice: consumption, 7/16; leasing land, 8/7.
Romania: 10/20.
"Rural America" (special articles): 8/8, 9/10, 10/9, 11/9.
Rural development: agencies involved, 11/9; Auburn, Ky., 9/11; community planning, 1/11, 9/10, 10/9; economic multipliers, 3/7, 5/10; education, 3/7; industrialization, 2/10, 3/7; local spending, 5/8; nonfarm jobs, 3/7, 8/9; Pennsylvania poll, 5/8; paper plant, 6/8; Pikeville, Ky., 8/9; small town growth, 8/9; underemployed counties, 1/8. See also "Rural America."

S

School lunch: 3/17, 4/11.
Sheep: numbers, 10/5; ranching, 10/4.
Smoking: health publicity, 9/13.
Snuff: 7/14.
Soap: 2/18.
Soil: map use, 7/10; salt-up, 11/4.
Soviet Union. See USSR.
Soybean oil: crush capacity, 2/14; usage, 9/15; yields, 9/15.
Soybeans: industry expansion, 6/2, 9/15, 12/6 (charts); processing, 2/14.
Spices: Malagasy exports, 9/19.
Squash: canning in South, 11/14.
Strawberries: frozen imports, 5/20; irradiated, 10/14.
Sugar: substitutes, 2/16; supplies, 2/12.
Sunflowerseed: USSR, 8/3; U.S., 9/8.
Supermarkets: price margins, 12/14.
Sweeteners: 2/16.
Synthetics: bacon, 10/12; detergents, 2/18.

T

Taiwan: development, 7/18; imports, 10/3.
Taxes: fiscal zoning, 2/8; personal property, 5/9; real estate, 2/9; withholding, 6/7; 1969 Tax Act changes, 9/5.
Terraces: Dakotas and Iowa, 6/6.
Tobacco: chewing and snuff, 7/14; cigarette use, 9/14; cigars and cigarillos, 9/14, 9/17; mechanization, 5/10, 6/5; pest control, 7/3; production and sales, 2/15; smoking-health, 9/14; taxes, 9/14; Turkish, 10/20.
Tomatoes: California yields, 9/8; consumption, 8/14; processed products, 8/14; mechanization, 6/5.
Tractors: 3/24, 9/9; Europe, 2/21.
Transportation: automobiles and trucks, 11/12; box cars, 6/12; corn, 1/14; grain rates, 1/14, 5/13; jobs in, 8/10; rail rates, 1/14, 5/13, 6/12; "rent-a-train," 1/14.
Turkeys: prices, 11/7; production, 1/6, 7/6.

U

Underemployment: 1/8.
United Kingdom: imports from U.S., 9/20.
Upper Volta: 5/20.
Uruguay: 3/20.
USSR: compared to U.S., 1/20; new 5-year plan, 11/18; sunflowerseed, 8/3.

V

Vanilla: 9/19.
Vegetable oils: in shortening and salad oils, 9/15; stocks, 2/15; use, 1/15, 7/16, 9/15. See also Oils.
Vegetables: fresh usage, 10/16; frozen imports, 5/20; retail price margins, 12/14. See also by specific types.
Vetch, hairy: 11/7.
Vertical integration: conglomerates, 4/9; egg industry, 6/14; farm machinery, 11/13; mergers, 5/11; types, 6/13.

W

Wages, farm: 3/6; industry vs. farm, 5/6; withholding taxes, 6/7.
Water: flood control, 6/10; pollution, 7/8; Texas drainoff, 4/5; usage conflicts, 4/7.
Watermelons: 7/24.
Weather: services, 3/2; rainmaking, 11/20.
Weeds and weedkillers: 8/6, 12/7.
Welfare checks: link to food prices, 11/15.
Wheat: EC surplus, 3/18; Kansas, 11/22; developing countries, 10/17; Washington, 4/4.
Whey: 12/12.
Windmills: 11/20.

Economic Trends

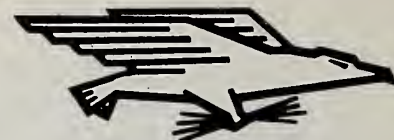
Item	Unit or Base Period	'57-'59 Average	1969		1970		
			Year	September	July	August	September
Prices:							
Prices received by farmers	1910-14=100	242	275	275	286	276	281
Crops	1910-14=100	223	220	211	235	226	235
Livestock and products	1910-14=100	258	323	331	330	319	320
Prices paid, interest, taxes and wage rates	1910-14=100	293	373	374	389	389	393
Family living items	1910-14=100	286	351	355	366	367	369
Production items	1910-14=100	262	304	304	313	312	317
Parity ratio		83	74	73	74	71	72
Wholesale prices, all commodities	1957-59=100	—	113.0	113.6	117.7	117.2	117.8
Industrial commodities	1957-59=100	—	112.7	113.2	116.9	117.1	117.4
Farm products	1957-59=100	—	108.5	108.4	113.1	108.2	111.8
Processed foods and feeds	1957-59=100	—	119.8	121.3	126.6	126.1	126.2
Consumer price index, all items	1957-59=100	—	127.7	129.3	135.7	136.0	136.6
Food	1957-59=100	—	125.5	127.5	133.4	133.5	133.3
Farm Food Market Basket: ¹							
Retail cost	Dollars	983	1,173	1,196	1,237	1,236	1,231
Farm value	Dollars	388	477	485	498	476	472
Farm-retail spread	Dollars	595	696	711	739	760	759
Farmers' share of retail cost	Percent	39	41	41	40	38	38
Farm Income: ²							
Volume of farm marketings	1957-59=100	—	126	143	124	123	143
Cash receipts from farm marketings	Million Dollars	32,247	47,229	4,527	3,846	3,800	4,600
Crops	Million Dollars	13,766	18,790	1,957	1,524	1,500	2,100
Livestock and products	Million Dollars	18,481	28,439	2,570	2,322	2,300	2,500
Realized gross income ³	Billion Dollars	—	54.6	54.8	—	—	56.5
Farm production expenses ³	Billion Dollars	—	38.4	38.6	—	—	40.8
Realized net income ³	Billion Dollars	—	16.2	16.2	—	—	15.7
Agricultural Trade:							
Agricultural exports	Million Dollars	4,105	6,228	471	558.3	528.5	561.1
Agricultural imports	Million Dollars	3,977	5,024	399	455.3	458.1	460.6
Land Values:							
Average value per acre	1957-59=100	—	⁵ 187	⁶ 187	⁷ 186	⁷ 186	⁷ 186
Total value of farm real estate	Billion Dollars	—	⁵ 202.6	⁶ 202.6	⁷ 208.9	⁷ 208.9	⁷ 208.9
Gross National Product: ³							
	Billion Dollars	457.3	931.4	942.6	—	—	985.2
Consumption	Billion Dollars	294.2	577.5	582.1	—	—	622.4
Investment	Billion Dollars	68.0	139.8	143.8	—	—	136.8
Government expenditures	Billion Dollars	92.4	212.2	214.1	—	—	221.3
Net exports	Billion Dollars	2.7	1.9	2.6	—	—	4.7
Income and Spending: ⁴							
Personal income, annual rate	Billion Dollars	365.3	748.9	763.1	803.3	806.4	811.8
Total retail sales, monthly rate	Million Dollars	17,105	29,303	29,259	30,729	30,690	30,750
Retail sales of food groups, monthly rate	Million Dollars	4,160	6,322	6,326	6,751	6,784	—
Employment and Wages: ⁴							
Total civilian employment	Millions	63.9	77.9	78.2	78.6	78.4	78.4
Agricultural	Millions	5.7	3.6	3.5	3.5	3.4	3.4
Rate of unemployment	Percent	5.5	3.5	3.8	5.0	5.1	5.5
Workweek in manufacturing	Hours	39.8	40.6	40.7	40.1	39.8	39.4
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	3.19	3.24	3.37	3.37	3.43
Industrial Production: ⁴							
	1957-59=100	—	173	174	169	169	166
Manufacturers' Shipments and Inventories: ⁴							
Total shipments, monthly rate	Million Dollars	8,745	54,726	56,609	57,025	56,903	—
Total inventories, book value end of month	Million Dollars	51,549	95,931	94,228	98,260	98,339	—
Total new orders, monthly rate	Million Dollars	28,365	54,933	56,669	57,111	56,122	—

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61—estimated monthly. ² Annual and quarterly data are on 50-State basis. ³ Annual rates seasonally adjusted third quarter. ⁴ Seasonally adjusted. ⁵ As of November 1, 1969. ⁶ As of March 1, 1969. ⁷ As of March 1, 1970.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

UNITED STATES GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS, WASHINGTON, D. C. 20402

OFFICIAL BUSINESS



POSTAGE & FEES PAID
United States Department of Agriculture

To stop mailing ☐ or to change your
address ☐ send this sheet with new
address to The Farm Index, OMS, U.S.
Department of Agriculture, Rm. 1459,
Washington, D. C. 20250.